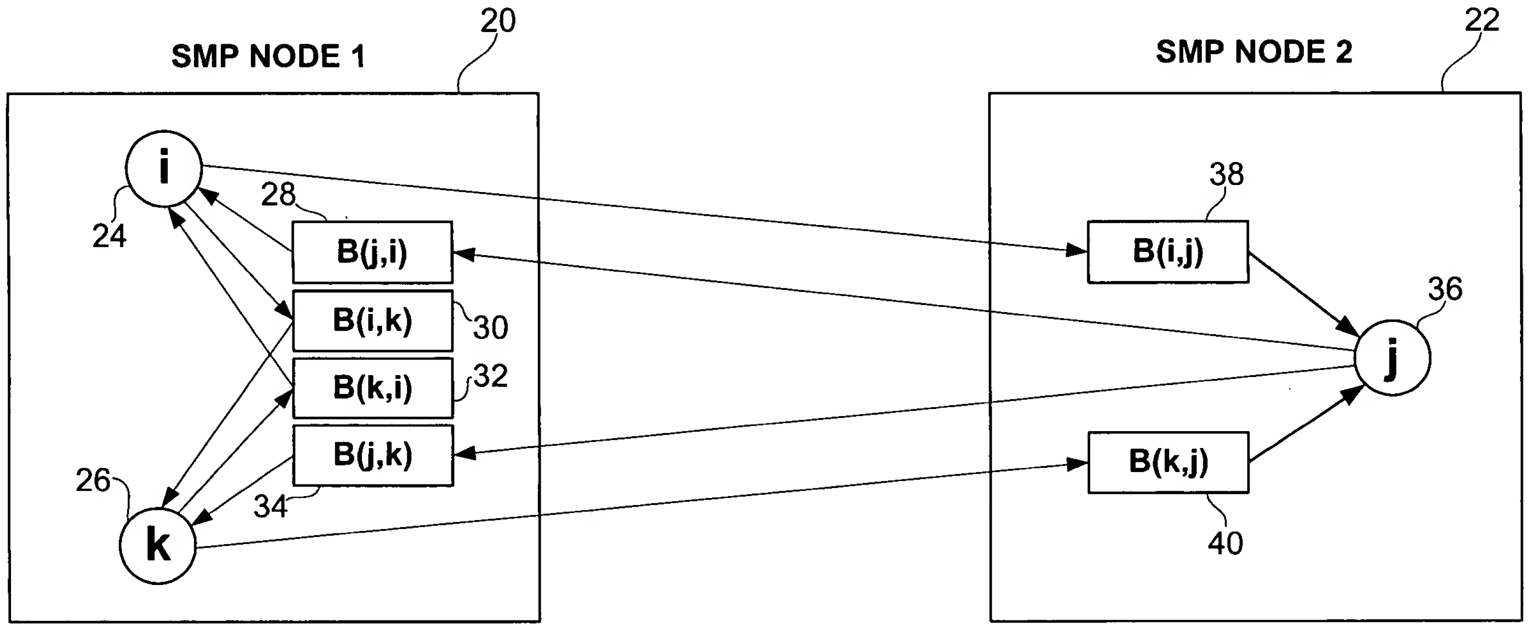

FIGURE 1 (PRIOR ART)

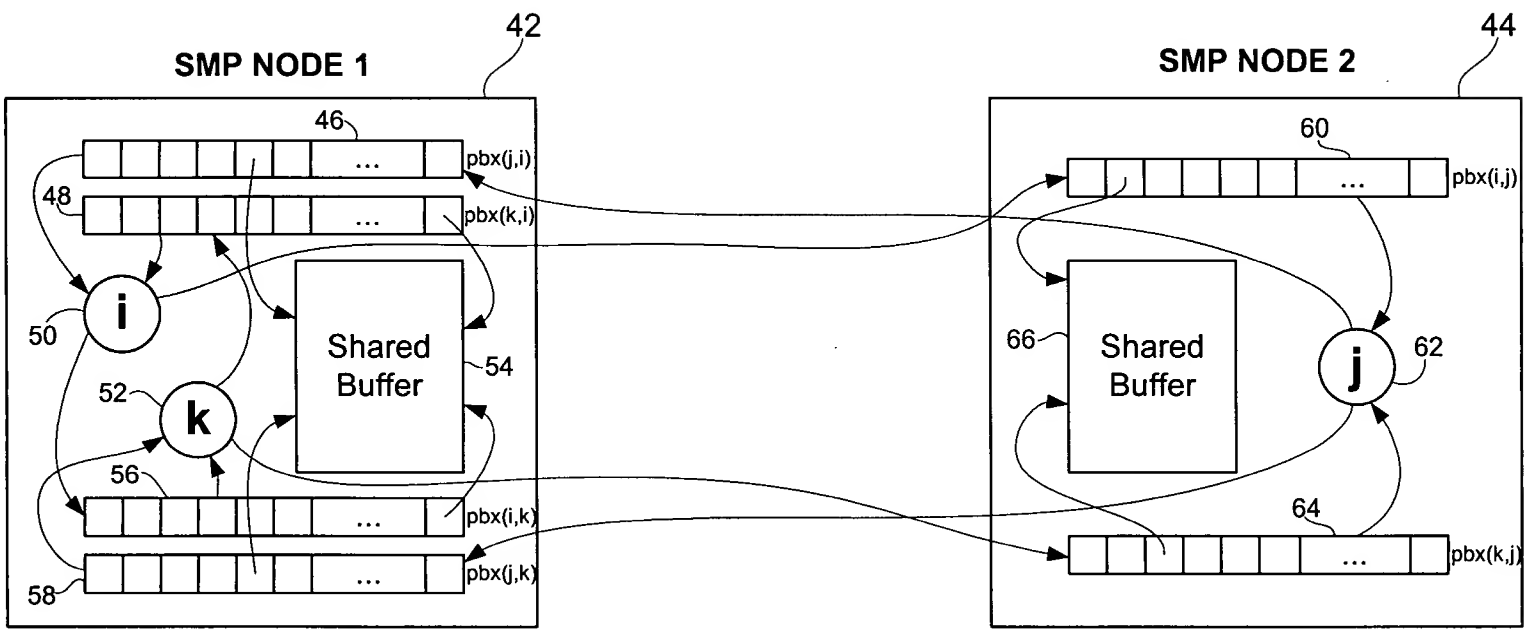

FIGURE 2 (PRIOR ART)

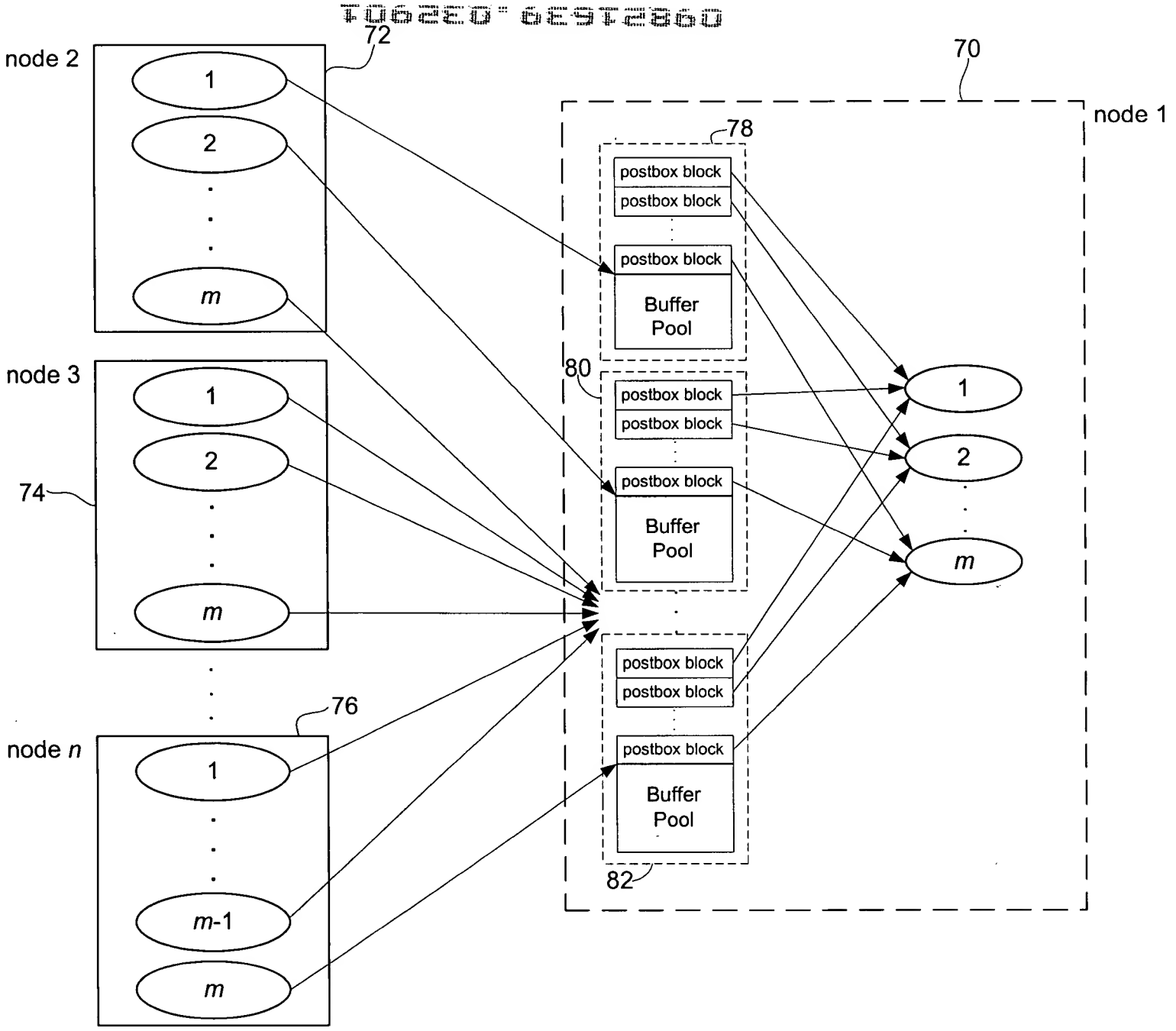

FIGURE 3 (PRIOR ART)

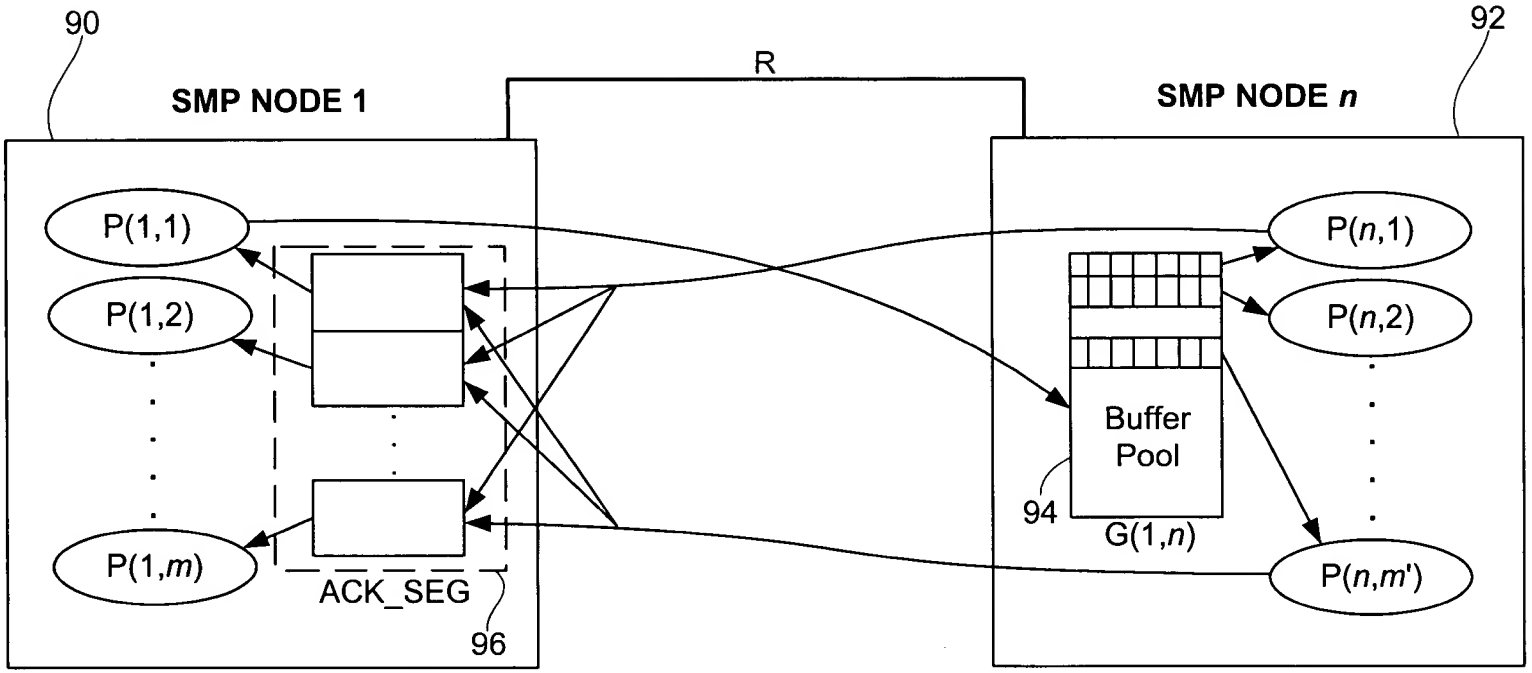

FIGURE 4

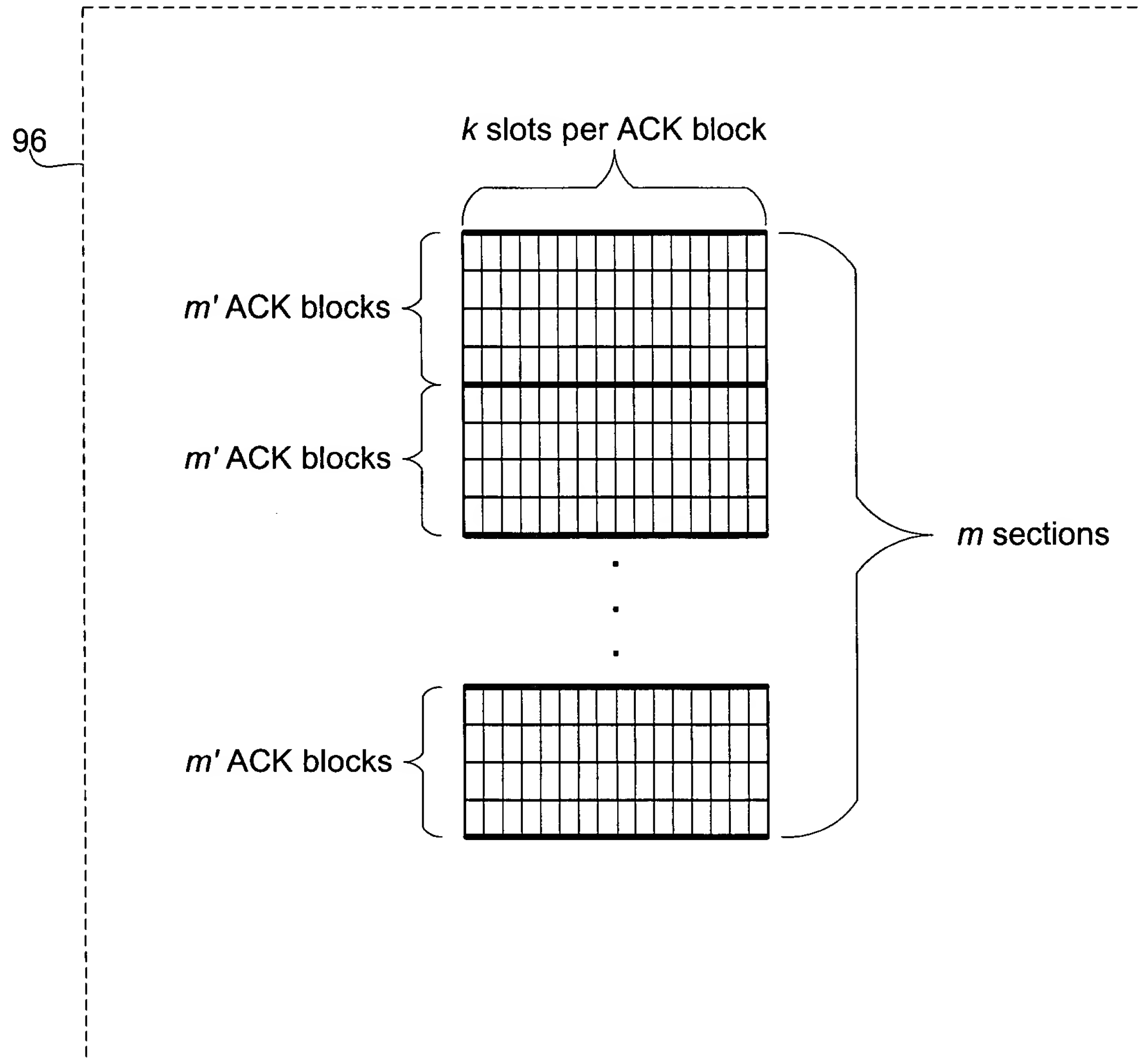
96
k slots per ACK block
m' ACK blocks
m' ACK blocks
m' ACK blocks
m sections

FIGURE 5

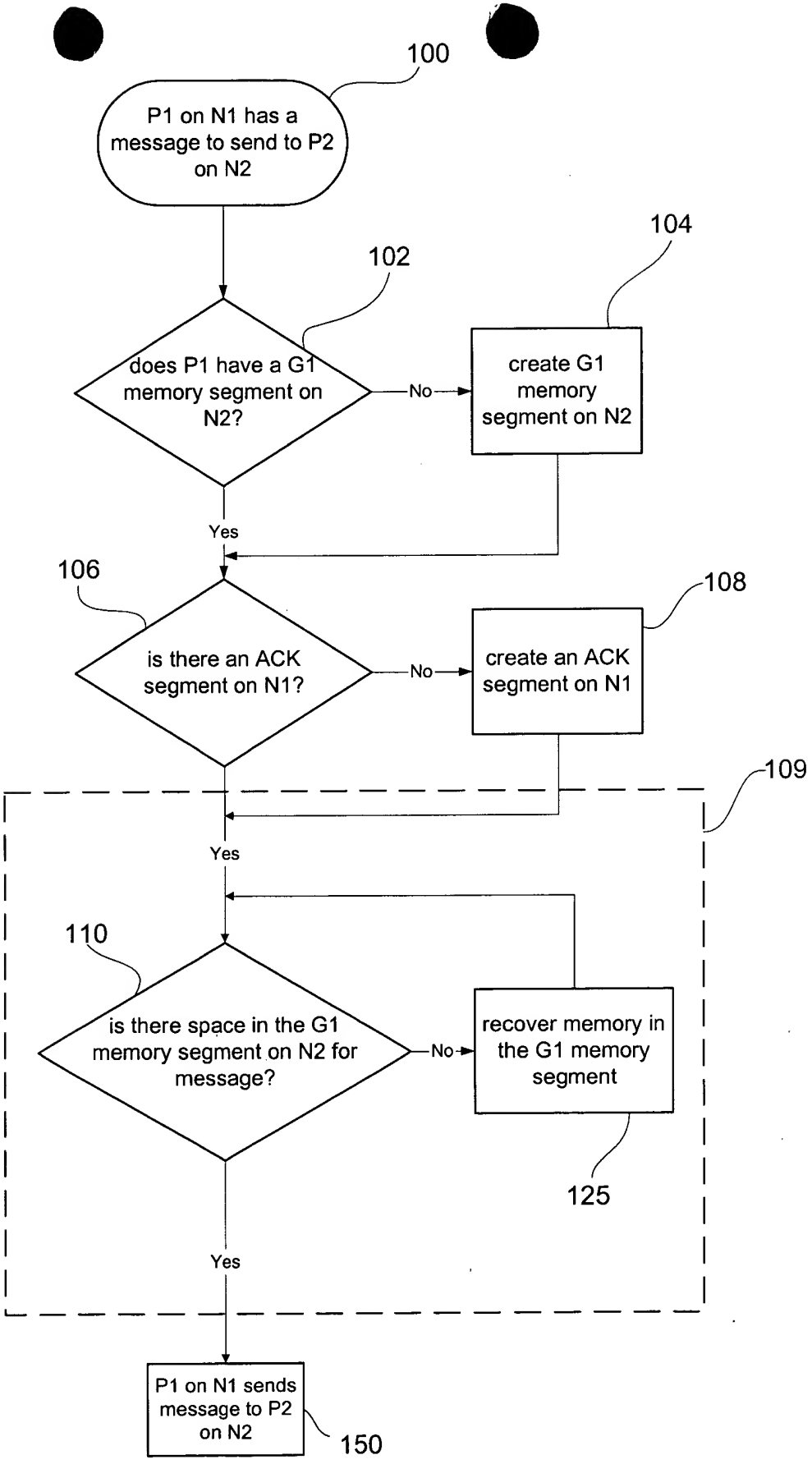
100
P1 on N1 has a message to send to P2 on N2
102
does P1 have a G1 memory segment on N2?
No
104
create G1 memory segment on N2
Yes
106
is there an ACK segment on N1?
No
108
create an ACK segment on N1
109
Yes
110
is there space in the G1 memory segment on N2 for message?
No
recover memory in the G1 memory segment
125
Yes
P1 on N1 sends message to P2 on N2
150

FIGURE 6

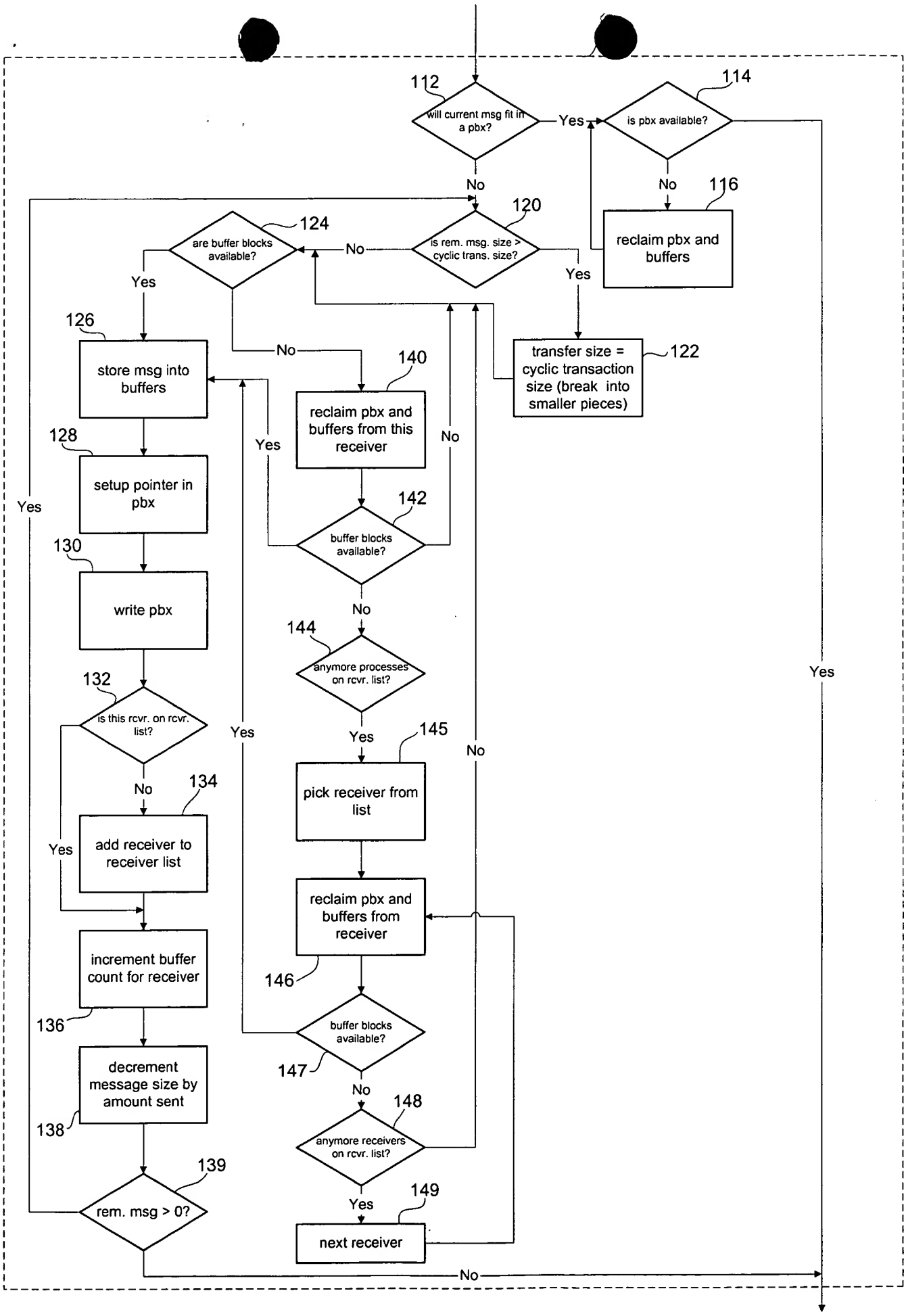
112
will current msg fit in a pbx?
Yes
114
is pbx available?
No
116
reclaim pbx and buffers
No
120
is rem. msg. size > cyclic trans. size?
Yes
124
are buffer blocks available?
No
Yes
122
transfer size = cyclic transaction size (break into smaller pieces)
126
store msg into buffers
No
140
reclaim pbx and buffers from this receiver
Yes
No
128
setup pointer in pbx
Yes
142
buffer blocks available?
130
write pbx
No
144
anymore processes on rcvr. list?
132
is this rcvr. on rcvr. list?
Yes
145
pick receiver from list
No
134
add receiver to receiver list
Yes
reclaim pbx and buffers from receiver
146
increment buffer count for receiver
136
buffer blocks available?
147
decrement message size by amount sent
138
No
148
anymore receivers on rcvr. list?
139
rem. msg > 0?
Yes
149
next receiver
No
Yes
Yes
No

FIGURE 7

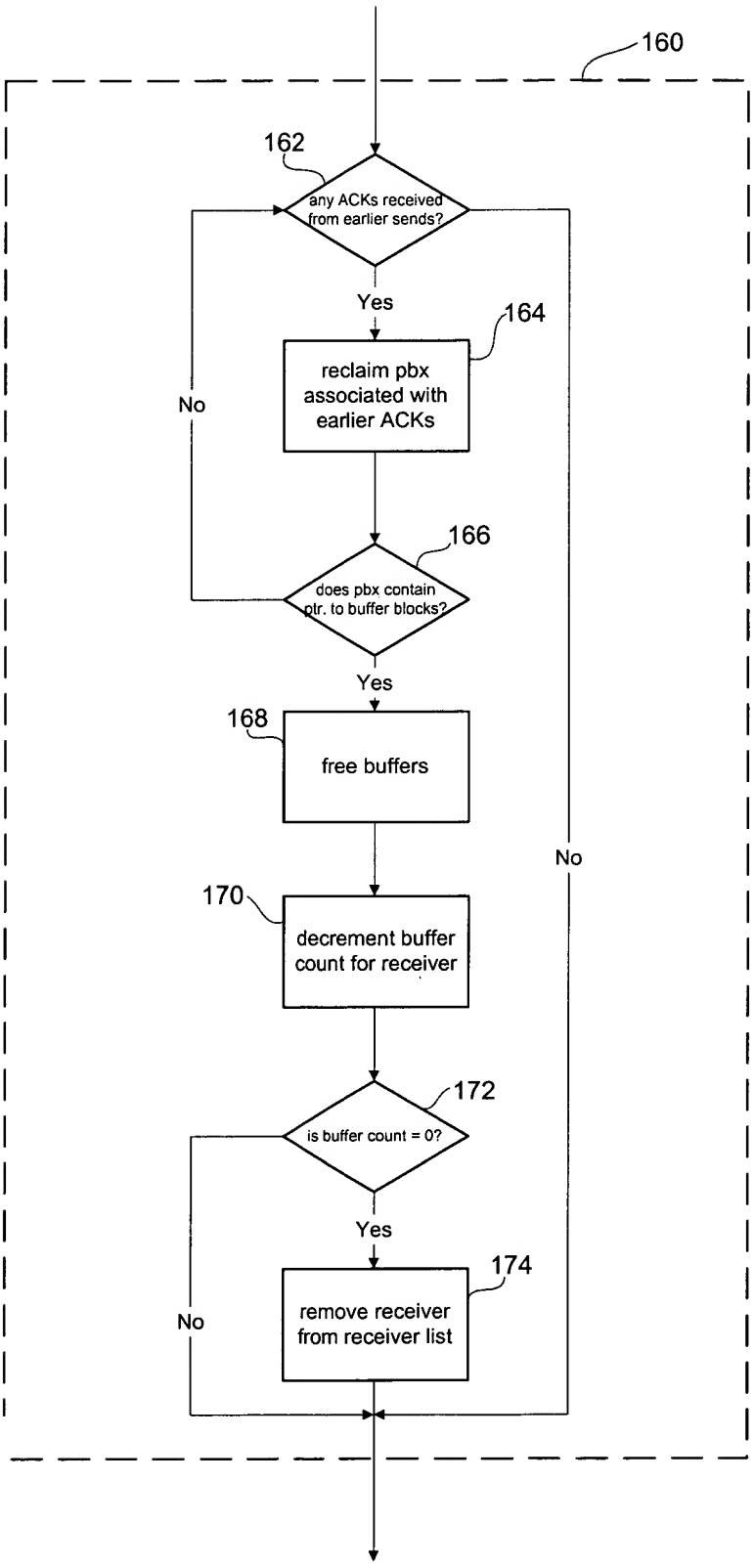
160
162
any ACKs received from earlier sends?
Yes
No
164
reclaim pbx associated with earlier ACKs
166
does pbx contain ptr. to buffer blocks?
Yes
No
168
free buffers
170
decrement buffer count for receiver
172
is buffer count = 0?
Yes
No
174
remove receiver from receiver list

FIGURE 8